

- 1. (original) Discharge vessel (1) with at least one end part (2) and a discharge cavity (3),
- characterized in, that at least one coating layer (4) is located and gas-tight connected
- between an end part (2) of said discharge vessel (1) and a sealant (5) and/or between a
- sealant (5) and an end closure member (9).
- 2. (original) Discharge vessel (1) according to claim 1, characterized in, that the gastight
- bonding of the coating layer (4) to the discharge vessel (1), to a sealant (5), and/or to an
- end closure member (9) is stronger compared to the direct gas-tight bonding of said
- sealant (5) to said end closure member (9) and/or discharge vessel (1).
  - 3. (currently amended) Discharge vessel (1) according to elaims 1 to 2claim 1, characterized in, that the coating layer (4) has an expansion coefficient in the range between  $4 \cdot 10^{-6}$  K<sup>-1</sup> and  $12 \cdot 10^{-6}$  K<sup>-1</sup>
  - 4. (currently amended) Discharge vessel (1) according to elaims 1 to 3 claim 1, characterized in, that the coating layer (4) is chemically resistant towards oxides and iodides.

- 5. (currently amended) Discharge vessel (1) according to elaims 1 to 4claim 1,
- characterized in, that the coating layer (4) is of a material selected from the group
- comprising at least W. Mo, and/or Pt.
- 6. (currently amended) Discharge vessel (1) according to elaims 1 to 5 claim 1,
- characterized in, that the coating layer (4) covers at least the end parts (2) of the
- discharge vessel (1) of the end closure device (7).
- 7. (currently amended) Gas-tight high-pressure burner (6) with coating layer (4)
- 2 | comprising at least one discharge vessel (1) according to claims 1 to 6 claim 1 and at least
- one end closure device (7) and at least one feed-through (8).
- 8. (currently amended) Gas-tight high-pressure burner (6) according to claim 7
- comprising at least one end closure member (9) with at least one feed-through (8),
- preferably wherein the end closure member (9) has at least one through-going feed-
- through opening, whereby the feed-through opening cross-section varies along the end
- s closure member (9) longitudinal axis.

- 9. (currently amended) Lamp, comprising at least one gas-tight high-pressure burner (6)
- according to claims 7 or 8claim 7, whereby the lamp is preferably arranged in an
- 3 automotive headlamp unit.
- 10. (currently amended) Method of manufacturing a gas-tight high-pressure burner (6)
- according to claims 7 or 8, comprising
- a) at least one end closure member (9),
- b) at least two feed-through members (8),
- s c) at least one connection means (10),
- 6 d) at least one sealant (5), and
- e) at least one discharge vessel (1) with a coating layer (4),
- 8 whereby-wherein the manufacturing method comprises the steps:
- i) filling said discharge vessel (1) with an ionisable filling through at least one
- 10 feed-through opening, and
- ii) closing said feed-through opening by arranging a feed-through (8) in said
- opening followed by gas-tight connecting said feed-through (8) to the end closure
- device (7) and/or to the discharge vessel (1) with connection means, whereby a
- gas-tight high-pressure burner (6) is obtained.

- 11. (new) A headlight suitable for use in a motor vehicle comprising a lamp, the lamp
- comprising a gas-tight high-pressure burner, the burner comprising
- at least one metal halide discharge vessel comprising
- o at least one end part; and
- 5 o a discharge cavity;
- at least one end closure member;
- 7 at least one sealant between the end closure member and the end part;
- s at least one gas-tight connection between the feed through member and the end
- 9 closure member;
- at least one gas-tight connected coating covering one or more of the end part of the
- discharge vessel, the sealant, and the end closure device, gas-tight bonding of the
- coating being stronger than gas-tight bonding of the sealant to the end closure member
- and/or the discharge vessel.
- 1 12. (new) The headlight of claim 11 wherein the coating layer has an expansion
- 2 coefficient in the range between  $4.10^{-6}$  K<sup>-1</sup> and  $12.10^{-6}$  K<sup>-1</sup> for temperatures in the range
- 3 298 K to 2174 K.

- 13. (new) The headlight of claim 11 wherein the coating layer is chemically resistant towards oxides and iodides.
- 14. (new) headlight of claim 11 wherein the coating layer comprises a material selected from the group comprising at least W, Mo, and/or Pt.
- 15. (new) The headlight of claim 11, wherein the sealant and the connection comprise
- materials that are needed for welding, laser welding, resistance welding, soldering,
- brazing, bonding with adhesive materials, primary shaping, sintering, sealing or any
- 4 combination thereof.
- 1 16. (new) The headlight of claim 11, further comprising
- at least one opening through the end closure and the end part; and
- at least one feed through member passing through the opening, the feed through being
- suitable for introducing first a filling into the discharge vessel after the end closure is
- sealed to the discharge vessel, and second an electrode after the discharge vessel is
- 6 filled.

- 17. (new) The headlight of claim 16, wherein the opening has an outer cross section and
- an inner cross section, and the outer cross section is greater than or equal to the inner
- 3 cross section.
- 18. (new) The headlight of claim 11, wherein the end closure is made of a functionally
- 2 graded cermet material including first and second materials denominated A and B
- 3 arranged such that in some portions concentration of compound A substantially
- increases where component B decreases causing gradients of both A and B, while an
- outer layer has a constant concentration of A and B.
  - 19. (new) The headlight of claim 18, wherein compound A comprises Al<sub>2</sub>O<sub>2</sub> and compound B comprises Mo.
  - 20. (new) The discharge vessel of claim 1, wherein the coating is between the sealant and the end of the discharge vessel.
- 1 21. (new) A method of assembling a lamp comprising:
- first sealing at least one cap (9) to a discharge vessel, the cap comprising an opening,
- the sealing process comprising increasing temperature and/or pressure within the
- vessel and using a sealant and a coating;
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- 5 after sealing, filling the vessel with at least one desired salt and/or at least one desired
- filling gas, through the opening;
- 7 positioning at least one electrode in opening after the vessel is filled; and
- second sealing the electrode in the opening using a technique resulting in
- substantially less temperature and pressure increase within the vessel than was
- required by the first sealing, so that the sealing and coating from the first sealing are
- not damaged by temperature and pressure from contents of the vessel.
  - 22. (new) Discharge vessel (1) according to claim 1, characterized in, that the coating layer (4) is of a material comprising at least Pt.
  - 23. (new) Discharge vessel (1) according to claim 1, characterized in, that the coating layer (4) is of a material comprising at least W.